

IN THE CLAIMS:

Amend the claims as follows.

Claims 1-22 (Canceled).

23. (Previously Presented) An isolated HCV E1 envelope peptide as defined by any of SEQ ID Nos:1-16 and 37.

24. (Previously Presented) An isolated HCV E1 envelope peptide consisting of up to 45 contiguous amino acids wherein an amino acid sequence selected from SEQ ID Nos:1-16 and 37 is present in said peptide.

25. (Previously Presented) An isolated peptide selected from the group consisting of:

- a peptide of 21 to 23 contiguous amino acids of SEQ ID NO:6;
- a peptide of 21 to 28 contiguous amino acids of SEQ ID NO:10;
- a peptide of 21 to 30 contiguous amino acids of SEQ ID NO:13;
- a peptide of 21 to 33 contiguous amino acids of SEQ ID NO:11 or 15;
- a peptide of 21 to 34 contiguous amino acids of SEQ ID NOs:1-5 or 7-9;
- a peptide of 21 to 35 contiguous amino acids of SEQ ID NO:12;
- a peptide of 21 to 39 contiguous amino acids of SEQ ID NO:14 or 37;
- a peptide of 21 to 40 contiguous amino acids of SEQ ID NO:16.

Claims 26-27 (Canceled)

28. (Currently Amended) A method of immunizing a human against infection with HCV-related virus or any mutated strain thereof, comprising administering to said human at least one peptide according to any one of claims 23 to 25~~to 27~~.

29. (Currently Amended) An assay kit for detecting the presence of anti-HCV-related virus antibodies within a sample of body fluid comprising:

optionally, a solid support,
at least one peptide according to any one of claims 23 to 25~~to 27~~, and
optionally, markers which allow detection of complexes formed between anti-HCV-related virus antibodies within a sample of body fluid with said at least one peptide.

30. (Currently Amended) A bioassay for identifying a compounds which modulate the interaction between a peptide according to any one of claims 23 to 25~~to 27~~ and an anti-HCV-related virus antibody, said bioassay comprising

- (i) contacting said peptide with said anti-HCV-related virus antibody;
- (ii) after (i), determining the binding between said peptide and said anti-HCV-related virus antibody;
- (iii) adding said compound or a combination of said compounds to the peptide-antibody complex formed in (i);

(iv) after (iii), determining the binding between said peptide and said anti-HCV-related virus antibody; and

(v) inferring, from (ii) and (iv) the modulation of binding between said peptide and said anti-HCV-related virus antibody by said added compound or said added combination of compounds.

31. (Currently Amended) A bioassay for identifying a compounds which modulate the interaction between a peptide according to any one of claims 23 ~~to 25~~to 27 and an anti-HCV-related virus antibody, said bioassay comprising

(i) determining the binding between said peptide and said anti-HCV-related virus antibody;

(ii) contacting said peptide with said compound;

(iii) adding said anti-HCV-related virus antibody to the peptide-compound complex formed in (ii);

(iv) after (iii), determining the binding between said peptide and said compound;

(v) inferring, from (i) and (iv) the modulation of binding between said peptide and said anti-HCV-related virus antibody by said compound.

32. (New) The isolated peptide of any one of claims 23-25 which is synthesized chemically.

33. (New) The isolated peptide of any one of claims 23-25 which is synthesized using recombinant DNA techniques.

34. (New) The isolated peptide of claim 33 wherein said peptide is synthesized using a plasmid vector comprising a nucleotide sequence encoding said peptide operably linked to transcription regulatory elements.

35. (New) The isolated peptide of any one of claims 23-25 which is biotinylated or which is containing cysteine bridges.

36. (New) The isolated peptide of any one of claims 23-25 which binds and recognizes anti-HCV virus antibodies.

37. (New) The isolated peptide of claim 35 which binds and recognizes anti-HCV virus antibodies.

38. (New) A combination of peptides comprising a peptide of any one of claims 23-25.

39. (New) A combination of peptides comprising a peptide of claim 35.

40. (New) A combination of peptides comprising a peptide of claim 36.

41. (New) A composition comprising an isolated peptide of any one of claims 23-25.

42. (New) A composition comprising an isolated peptide of claim 35.
43. (New) A composition comprising an isolated peptide of claim 36.
44. (New) An assay kit for detecting the presence of anti-HCV virus antibodies within a sample of body fluid comprising at least one peptide of any one of claims 23-25.
45. (New) An assay kit for detecting the presence of anti-HCV virus antibodies within a sample of body fluid comprising a combination of peptides of claim 35.
46. (New) An assay kit for detecting the presence of anti-HCV virus antibodies within a sample of body fluid comprising a combination of peptides of claim 36.
47. (New) An assay kit for detecting the presence of anti-HCV virus antibodies within a sample of body fluid comprising a combination of peptides of claim 38.
48. (New) An assay kit for detecting the presence of anti-HCV virus antibodies within a sample of body fluid comprising a combination of peptides of claim 39.
49. (New) A method of raising an immune response in a human against hepatitis C virus, comprising administering to said human at least one peptide according to any one of claims 23-25.

50. (New) A method of raising an immune response in a human against hepatitis C virus, comprising administering to said human at least one peptide according to claim 32.

51. (New) A method of raising an immune response in a human against hepatitis C virus, comprising administering to said human at least one peptide according to claim 33.

52. (New) A method of raising an immune response in a human against hepatitis C virus, comprising administering to said human at least one peptide according to claim 34.

53. (New) A method of raising an immune response in a human against hepatitis C virus, comprising administering to said human at least one peptide according to claim 35.

54. (New) A method of raising an immune response in a human against hepatitis C virus, comprising administering to said human a combination of peptides according to any one of claims 23-25.

55. (New) A method for diagnosing exposure to or infection by HCV viruses comprising:

contacting anti-HCV virus antibodies within a sample of body fluid with at least one peptide according to any one of claims 23-25, determining the binding of anti-HCV virus antibodies within a sample of body fluid with said at least one peptide.

56. (New) The method according to claim 55 wherein said anti-HCV virus antibodies are anti-HCV antibodies.